Bristol.

C. F. J. CROPPER,

Senior Physician.

months showed little alteration in size. The mass on screening did not appear to encroach on the brachial plexus.

The remainder of the pregnancy was uneventful except that she remained at the same weight the whole time. Three weeks before term she had a slight loss of blood per vaginam, which did not recur. At term she was delivered normally of an 8 lb. (3.6 kg.) male child, which was weaned from the breast and is now eight months old, weighing 18 lb. (8.2 kg.).

After delivery a large mass of glands appeared on the left side of the neck, rapidly increasing in size. During February and March, 1950, a further course of treatment was given to the mediastinal mass and to the cervical glands. The latter regressed completely, but again there was little observable effect in the mediastinal mass. At the beginning of June, 1950, the pain in the right arm reappeared and a small freely movable gland became palpable on the right side of the neck anteriorly. This is at the moment being irradiated. The mediastinal mass is apparently unchanged. No glands are palpable apart from the small one in the right cervical region.

Two interesting points which this case illustrates are: first, the fact that pregnancy in Hodgkin's disease is usually associated with mediastinal involvement; secondly, that during the whole of the pregnancy no exacerbation of symptoms occurred.-We are, etc., J. R. HARRIES.

Singapore.

J. W. WINCHESTER.

Norms of Cerebrospinal Fluid

SIR,-The paper by Mr. W. R. Henderson and Dr. C. G. de Gutiérrez-Mahoney on cerebrospinal fluid in 302 cases of intracranial tumour, abscess, and subdural haematoma (June 24, p. 1461) is interesting in many points. The authors emphasize quite rightly that a pathological cerebrospinal fluid may be only "characteristic" of a tumour, etc., without being "specific, but emphasize that an examination of the fluid as a preliminary investigation has nevertheless its value, in order to confirm or exclude a possible organic disorder of the nervous system. This is a very important point indeed, but I find it rather difficult to agree to their statement that the total protein content of a cerebrospinal fluid may be as high as 60 mg. per 100 ml. According to Mestrezat (1912), one of the pioneers in the field of research on the cerebrospinal fluid, the upper limit of total protein is usually 25 mg. per 100 ml., and only in very exceptional circumstances it may be 30 mg. (but one wonders whether the three persons quoted by him as such exceptions were "normal"). Hewitt (1927) thinks that the normal protein content is about 23 mg. per 100 ml. Lange (1939) and Neel (1939) assume that 25 mg. per 100 ml. is the upper limit, and my own experience agrees with these figures. If one accepts them it will be seen that only very few patients referred to in Table I by Henderson and Gutiérrez-Mahoney had normal cerebrospinal fluids.

It may be worth while to mention on this occasion that the cell content of a normal cerebrospinal fluid is one in 3 c.mm. (Neel), three in 3 c.mm. (Lange). I find that four cells in 3 c.mm. is the upper limit of the norm. Such a low "normality" for total protein and cells is possibly too rigid a measure for the neurologist; for the psychiatrist it is a necessity.-I am, etc.,

Shenley, near St. Albans.

H. H. FLEISCHHACKER.

REFERENCES

Fleischhacker, H. H. (1945). J. ment. Sci., 91, 353.
Hewitt, L. F. (1927). Brit. J. exper. Path., 8, 84.
Lange, C. (1939). Amer. J. Syph., 23, 638.
Mestrezat, W. (1912). Le Liquide Céphalo-Rachidien. Maloine, Paric.
Neel, A. V. (1939). The Contents of Cells and Proteins in the Normal Cerebrospinal Fluid. Levin and Munksgaard, Copenhagen.

Premedication for Gastroscopy

SIR,—The ideal preparation for gastroscopy is a matter about which there are many opinions. For a long time I was in the habit of using morphine 1/6 gr. (11 mg.) one and a half hours before gastroscopy, but for the last 130 cases I have used pethidine 100 mg. with scopolamine 1/150 gr. (0.4 mg.) intramuscularly. (In either case a tablet of "decicain" 50 mg, is given under the tongue half an hour before gastroscopy.)

I have found this latter method of premedication preferable to any other so far tried inasmuch as it produces sufficient sedation and relaxation to make instrumentation generally easy without depriving the patient of the ability to co-operate during

endoscopy or rendering him so drowsy afterwards that any untoward post-endoscopy symptoms might be late in appearing. Furthermore it is entirely suitable for out-patients, who can leave the hospital within three hours of gastroscopy.

The number of patients (roughly 5%) in whom oesophageal spasm precludes gastroscopy is about the same in my series whatever method of sedation is used.-I am, etc.,

Ministry of Pensions Hospital, Worcester.

The Dumping Syndrome

SIR,-I have read with very great interest Mr. Thomas O'Neill's communication (July 1, p. 15) on the "Dumping Syndrome," and I would like to endorse his remarks that the condition presents a serious challenge to all who practise the operation of partial gastrectomy. In the assessment of cases it is very difficult to differentiate between organic and functional symptoms. I think, however, that no advance can be made until two distinct syndromes are recognized:

1. An early syndrome-which occurs during or immediately after a meal and is believed to be mechanical in origin. This rarely follows gastro-enterostomy but is seen in 10% to 15% of cases after gastrectomy. This particular variety of the syndrome may persist for many years and presents the major problem.

2. A delayed syndrome-which occurs during the second or third hours following meals and is considered to be due to and coincident with reactive hypoglycaemia. This is less frequent than the early syndrome and does not present such a problem, as the condition tends to disappear spontaneously. Almost half the patients who exhibit this syndrome after gastrectomy have similar symptoms before operation.

With regard to the operative procedure described by Mr. O'Neill, surely it is the original procedure performed by Hoffmeister in 1908-a valvular anastomosis with a central stoma ?

Finally, "dumping" is essentially a radiological term, and I do not think that there is any justifiable pathological basis for its use to describe a clinical syndrome the cause of which is probably not due to any single factor.-I am, etc.,

T. J. BUTLER.

Obstetrical Anaesthesia

SIR,-In regard to Dr. A. H. Morley's letter (July 1, p. 47) [‡] light in criticism of Professor Jeffcoate's statement that chloroform anaesthesia has much to commend it for easy low forceps delivery in domiciliary practice," may I be permitted a few disjointed comments? He asks, "How many expert anaesthetists would choose to administer chloroform for any operative procedure during labour?" My comment would be that I have administered chloroform in all minor and major operative procedures in labour conducted by myself, all in the left lateral position-and a goodly number to wit-and the results show not one single case of primary cardiac failure in the . whole series. One case collapsed following a difficult delivery due to the use of pituitary extract, and this was in 1926.

What are the criteria for care in chloroform anaesthesia? Training in the use of the drug, appreciation of any dangers which might occur, and correct treatment when you are unfortunate enough to meet misfortune. What is the alternative to chloroform in the case of the usual domiciliary midwifery where a fire is burning-the fire not only for heating the room -and the practitioner single-handed? Are patients in better condition after ether, can it be used with an open fire, and is it easy to administer single-handed and still conduct a difficult delivery? Trichlorethylene might take its place, but how shall we obtain relaxation, which is surely a necessity if the labour is really difficult and we are to do as little damage as possible ? N₂O has the same objection, while thiopentone is surely contraindicated in this type of work if for only one reason alone-the ease of vomiting occurring with thiopentone, with no warning in patients strongly addicted to this process.

I would commend Dr. Morley's positioning in domiciliary midwifery, particularly in general anaesthesia, as sound and proved by experience. In regard to chloroform in these same conditions, has it not also passed the test of time? It is